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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---|-------------|----------------------|--------------------------------|------------------|
| 09/818,612 | 03/28/2001 | Hideki Kobayashi | 205266US2SRD | 1753 |
| 22850 | 7590 | 07/12/2005 | | |
| OBLON, SPIVAK, MCCLELLAND, MAIER & NEUSTADT, P.C. 1940 DUKE STREET ALEXANDRIA, VA 22314 | | | EXAMINER COLON, CATHERINE M | |
| | | | ART UNIT 3623 | PAPER NUMBER |

DATE MAILED: 07/12/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/818,612

Applicant(s)

KOBAYASHI, HIDEKI

Examiner

C. Michelle Colon

Art Unit

3623

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 11 April 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-25 is/are pending in the application.
- 4a) Of the above claim(s) 1-4, 8-12, 16, 17 and 19-25 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 5-7, 13-15 and 18 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 3/28/01, 7/18/01, 6/23/03

- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

1. The following is a Non-Final Office Action in response to the communication received on April 11, 2005. Claims 1-25 are now pending in this application.

Response to Provisional Election

2. Claims 5-7, 13-15 and 18 have been provisionally elected with traverse in response to the Election/Restriction Requirement mailed March 10, 2005. In response to Applicant's election with traverse, Examiner respectfully submits that four distinct inventions were properly identified in the Election/Restriction Requirement. Not only are the four inventions classified across three different subclasses, but the four inventions also require separate and different textual/keyword search strategies. For example, the invention of Group IV, which is the elected group, requires textual/keyword search strategies relating to determining the cost ratio of parts to a whole product and the environmental load ratio, whereas the invention of Group I requires textual/keyword search strategies relating to determining if a product use period is less than or equal to the half life of the part with the longest life. Thus Group IV requires separate and different textual/keyword search strategies that are not required for Group I. Because of the separate and different textual/keyword search requirements for each invention, Examiner respectfully submits that this indeed would place a serious burden upon examination.

Therefore, Examiner respectfully submits the Election/Restriction Requirement of claims 1-25 was proper. Since Applicant has provisionally elected claims 5-7, 13-15

and 18, claims 1-4, 8-12, 16, 17 and 19-25 have been withdrawn from further consideration.

Information Disclosure Statement

3. The examiner has reviewed the patents and publications supplied in the Information Disclosure Statements (IDS) provided on March 28, 2001, July 18, 2001, and June 23, 2003.

Abstract

4. The abstract of the disclosure is objected to because the abstract does not describe the invention of the elected group of claims; rather, the abstract appears to be a recitation of a claim directed to a non-elected invention.

Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. *The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.*

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

Correction is required. See MPEP § 608.01(b).

Claim Rejections - 35 USC § 101

5. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

6. Claims 5-7 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

The basis of this rejection is set forth in a two-prong test of:

(1) whether the invention is within the technological arts; and

(2) whether the invention produces a useful, concrete, and tangible result.

As per the first prong of the test, for a claimed invention to be statutory, the claimed invention must be within the technological arts. Mere ideas in the abstract (i.e., abstract idea, law of nature, natural phenomena) that do not apply, involve, use, or advance the technological arts fail to promote the "progress of science and the useful arts" (i.e., the physical sciences as opposed to social sciences) and therefore are found to be non-statutory subject matter. For a process claim to be satisfactory, the recited process must somehow apply, involve, use, or advance the technological arts.

In the present case, method claims 5-7 merely recite steps for product life cycle planning using cost ratio of parts; however, the recited steps do not apply, involve, use, or advance the technological arts since all of the recited steps can be performed in person or by use of a pencil and paper and without the need of a computer or other technology.

As per the second prong of the test, for a claimed invention to be statutory, the claimed invention must produce a useful, concrete, and tangible result. In the present case, the claimed invention determines cost ratio of parts to a whole product (i.e., concrete) and proposes reusable parts (i.e., useful and tangible).

Although the recited process produces a useful, concrete, and tangible result, since the claimed invention, as a whole, is not within the technological arts as explained above, claims 5-7 are directed to non-statutory subject matter.

Claim Rejections - 35 USC § 102

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

8. Claims 5 and 13 are rejected under 35 U.S.C. 102(e) as being anticipated by Tani et al. (U.S. 6,529,788).

As per claim 5, Tani et al. discloses a method for aiding product life cycle planning, comprising:

generating parts to a whole and information concerning cost ratio of product and environment load ratio (col. 2, lines 15-18; col. 9, lines 55-62; col. 10, lines 1-7; The

system maintains in a database recycle information for products, parts and raw materials where the recycle information includes cost and environmental load.);

extracting reuse candidate parts from the information (col. 6, lines 1-23; col. 12, lines 3-19; Figures 8 and 9; The system uses information such as cost and environmental load to determine reuse candidate parts for a potential new product.).

Claim 13 recites substantially similar subject matter as claim 5 above. Therefore, claim 13 is rejected on the same basis as claim 5 above.

Claim Rejections - 35 USC § 103

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. Claims 6, 7, 14, 15 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tani et al. (U.S. 6,529,788), as applied above, in view of Parker v. Flook, 198 USPQ 193 (1978).

As per claim 6, Tani et al. does not expressly disclose a method according to claim 5, comprising producing a two-dimensional graph wherein the cost ratio and the environment load ratio are indicated by axes, based on the information; and dividing the graph into a plurality of domains, and said extracting step including extracting the reuse candidate parts from at least one of the domains in which parts are existed. However,

as discussed above in claim 5, Tani et al. does teach conducting analyses on cost and environmental information on parts of products to determine reuse candidates that meet certain requirements (i.e., low cost and low environmental load) for a potential new product (Figure 9). Thus, Tani et al. reaches the same results using cost and environmental load data as the instant application. All that remains is the manner in which one of ordinary skill in the art elects to present the results. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to present the cost and environmental load data on a two-dimensional graph because, as stated by the Court in Parker v. Flook, 198 USPQ 193 (1978):

"The notion that post-solution activity can transform an unpatentable principle into a patentable process exalts form over substance. A competent draftsman could attach some form of post-solution activity to almost any mathematical formula; the Pythagorean theorem would not have been patentable, or partially patentable, because a patent application contained a final step indicating that the formula, when solved, could be usefully applied to existing surveying techniques."

The Court in Parker makes clear that once the object of the method has been achieved, the act of graphically depicting the result does not serve to otherwise "transform" such result in any non-obvious way. In this case, the object of the method is achieved as disclosed by Tani et al. with the exception of the specific form of the graphical depiction recited by Applicant. However, this specific form of graphical depiction does not result in any further "transformation" of the result itself, but merely serves to differently represent, in manifest form, the result of same completed method. Thus, Tani et al.

achieves the same results (selecting reuse candidate parts to create a new product) using the same data (cost and environmental load) as the instant application. That the instant application displays the results in a different fashion than Tani et al. is not a patentable distinction over Tani et al.

Claims 7, 14, 15 and 18 recite substantially similar subject matter as claim 6 above. Therefore, claims 7, 14, 15 and 18 are rejected on the same basis as claim 6 above.

Conclusion

11. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- Kobayashi et al. (U.S. 6,811,344) discusses a system for designing an environmentally conscious product;
- Miyamoto et al. (U.S. 5,652,708) discusses a method for assessing environmental impact of the manufacture of a product;
- Kamejima et al. (U.S. 5,436,843) discusses a method for recycling and circulating products; and
- Takeyama et al. (U.S. 5,852,560) discusses an apparatus for assessing environmental load.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to C. Michelle Colon whose telephone number is 571-272-

6727. The examiner can normally be reached Monday – Friday from 8:30am to 5:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tariq Hafiz, can be reached at 571-272-6729.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Any response to this action should be mailed to:

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or faxed to:

703-872-9306 [Official Communications; including After Final
communications labeled "Box AF"]

571-273-6727 [For status inquiries, draft communication, labeled
"Proposed" or "Draft"]

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C. Michelle Colón
Patent Examiner
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July 5, 2005